

**DRAFT**

# **Performance Measures**

**FIVE-YEAR PLAN for the Waste Tire  
Recycling Management Program  
(Baseline Data for Fiscal Year 01/02)**

January 30, 2003

## **Five-Year Plan Performance Measures**

**Enforcement** - *To evaluate the program's success in achieving its objectives, the following measures are proposed (baseline data will be collected during FY 01/02):*

1. Increase the number of inspections conducted by program staff by 20 percent per year through 2006.

During the baseline year 2001/02, Board staff conducted 245 inspections of permitted and unpermitted waste tire facilities and sites. These inspections resulted in the issuance of 109 Letters of Violation, 22 Cleanup and Abatement Orders, 10 Administrative Complaints and one Criminal Complaint.

During this same period, eight local jurisdictions conducted 2595 inspections under the Local Government Waste Tire Enforcement Grant program. These inspections resulted in the issuance of 367 Letters of Violation.

2. Increase the proportion of successful legal actions (those resulting in fines or penalties awarded).

Legal action is almost entirely dependent upon potential actions being referred by inspection staff. The successful legislation in 2002, which gave the Board the right to attach a lien for recovery costs, ensures that any legal action taken will be "successful." Therefore, this is not a relevant performance measure.

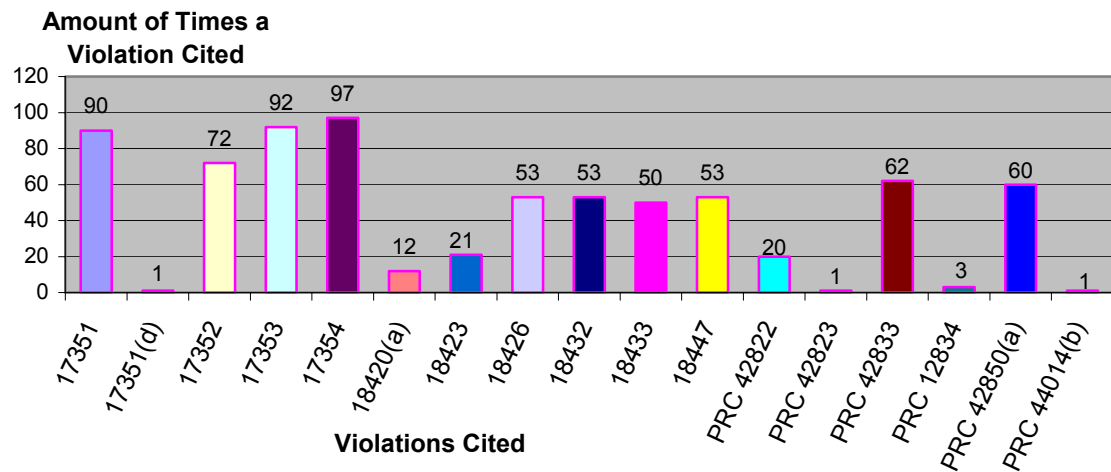
Service of process remains our trigger issue. So a performance standard could call for increasing our effectiveness in remediating sites and liening properties where the responsible party is unable to be located and/or served.

The Legal Office is implementing a system where we take a number of concrete steps to expeditiously establish our "due diligence" in attempting to locate responsible parties. Once this has been accomplished, we are in a strong position to obtain a judicial order permitting the service of an unlocatable responsible party to be effected "by publication." This is accomplished by placing a notice in a newspaper of general circulation directed at the responsible party, notifying him of the pending proceeding. Once the responsible party fails to respond, we can obtain access to the property for remediation, and thereafter lien the property for the cost of the remediation.

This new system is expected to increase the number of sites we are able to expeditiously process from the initial inspection stage through remediation, regardless of the difficulties we may encounter in serving the responsible party.

3. Track the number of documented violations to determine whether they are increasing or decreasing over time

During the baseline year 2001/02, Board staff documented 741 violations of waste tire statutes and regulations. These are broken down as follows:



Board staff did not have a system in place during the base year to track the violations reported by local jurisdictions. In subsequent years, these data will be reported and displayed as shown above for Board staff inspections. While it is important to display these inspection results to demonstrate either an increase or decrease in violations, these data are also valuable as a means of identifying specific areas where training is needed for both facility and site owners and operators and for inspectors.

4. Track the number of illegal sites that are closed or become permitted.

During the base year 2001/02, 32 illegal sites were closed and cleaned up. These actions were the result of various levels of warnings and enforcement actions on the part of Board staff. 19 sites were cleaned up after the issuance of Letters of Violation (LOV), which are notices, sent to property owners, informing them they are violating the law and specifying a time period to come into compliance. 10 sites were cleaned up after issuance of Clean Up and Abatement Orders (CAO), which are the first level of formal enforcement action if compliance is not achieved by the LOV. The CAO restates the violations, specifies a time frame to clean up the site, and puts the owner on notice that penalties will be assessed if compliance is not achieved. Three sites were cleaned up by the Board contract after issuance of Administrative Complaints (AC), which are the second level of enforcement action. The AC assesses penalties in addition to specifying a timeframe for compliance.

Board staff did not have a system in place during the base year to track similar results reported by local jurisdictions. In subsequent years, these data will be reported and displayed as shown above for Board staff.

5. Gradually reduce the number of newly discovered illegal sites (through CHP surveillance or local enforcement) on an annual basis.

The Board's authority encompasses waste tire sites of greater than 500 tires. During the base year 2001/02, 23 such sites were discovered.

6. Increase the number of applicants participating in local government enforcement grant program.

During the base year 2001/02, eight local jurisdictions (five counties and three cities) participated in the grant program. As a result of changes in procedures and funding approved by the Board in the summer of 2002 and an aggressive marketing program conducted by Board staff, the number of participating local jurisdictions in subsequent years will increase dramatically.

7. Increase the number of local government entities delegated enforcement authority.

The Board has increased the number of local government entities to assist in enforcement actions. Due to a successful outreach program and changes in the enforcement grant program, the number of local entities submitting enforcement applications has increased from eight grantees to twenty-five.

The Board has chosen to focus local efforts on surveillance and inspections. Board staff plans to conduct training of local agencies on inspection and surveillance techniques and report writing. To ensure consistent enforcement actions across the entire state, any necessary enforcement actions involving litigation will be referred to Board staff.

**Cleanup** - *To evaluate the program's success in achieving its objectives, the following measures are proposed (baseline data will be collected during FY 01/02):*

1. Complete the long-term waste tire remediation projects within five years.

The tire fire remediation activities for the Westley tire fire are nearly complete. To date the Board has removed an estimated 290,000 tons of contaminated materials and expended approximately \$17 million.

The contract for the Tracy tire fire remediation was awarded in January 2003. It is anticipated that the remediation of this site will be completed within a three-year period.

2. Complete the short-term waste tire remediation projects referred by IWMB's Waste Tire Enforcement Program on an annual basis.

During FY 01/02 4 sites were referred. Their owners cleaned up 3 sites and one site has been approved by the Board to be cleaned up as a Board managed project. See Table 6, which shows by fiscal year when the site was put on the list and if they have been cleaned up by owner or through cleanup grants.

3. Increase the number of waste tire cleanup grants issued to local governments on an annual basis.

Baseline of 9 grants issued in Fiscal Year 01/02. NOFA for this fiscal year is scheduled to be released in January 2003. Award of grants is scheduled for March 2003.

4. Increase the number of waste tire amnesty grants issued to local governments on an annual basis.

For FY 2001/2002, there were 22 grantees awarded for total \$330,817.34, with total matching fund of \$309,179.16. (The maximum individual grants awards of \$20,000, no JPAs). For FY 02/03, 11 grants awarded \$321,247 with total matching fund of \$201,738.28. (The maximum individual awards of \$20,000, but allowed JPA to maximum \$50,000 for three or more districts in JPA.) Due to the shortage of 50 % match fund request. There were six grantees (most of them were in rural area) applied only from \$2,500 to \$9,051.08 grant for FY 2001/2002. For the next cycle FY 2003/2004, eliminate matching request may help rural applicants to get the grant.

5. Increase the percentage of tires remediated through the farm and ranch cleanup grants issued to local governments on an annual basis.

The Farm and Ranch Cleanup Program reports that 2,103 tires were cleaned up in Fiscal Year 01/02.

6. With the cooperation of OSFM, develop a tire fire response protocol and update and amend the Uniform Fire Code within five years.

In January 2002, the Board entered into an IAG with the OSFM to update the tire fire-training program and will work in conjunction with CIWMB in providing training information/technical assistance to local fire jurisdictions throughout the State of California. OSFM will also promulgate changes to the California Fire Code for enforcement consistency with the Public Resources Code/California Code of Regulations pertaining to waste tire storage.

In May 2001 CIWMB entered into a contract with Environmental Engineering and Contracting, Inc. to convene a two-day working consisting of 8 experts in the field of tire pile fires and related environmental and health/safety issues. The workshop was held and the contractor is in the processing of developing the written reports which summaries the findings and recommendations of the panel of experts. This written report will be incorporated into the tire fire protocol training materials by the OSFM.

**Research** - *To evaluate the program's success in achieving its objectives, the following measures are proposed (baseline data will be collected during FY 01/02):*

1. Under contract with IWMB, OEHHA will complete a waste tire combustion toxicity report by December 2001.

The Board entered into an interagency agreement with the Office of Environmental Health Hazard Assessment to complete this report. The report identified the major chemical constituents in smoke from burning tires, the toxicity of those chemicals and the potential effects on human health from exposure to smoke from burning tires. The report was completed and submitted to the Legislature in December 2001.

2. Under contract with IWMB, specified major tire manufacturer(s) will increase the amount of recycled content in new tires within five years.

Recycled-Content - \$228,770 awarded to contractor. Nevada Automotive Testing Center (NATC) is working on 2nd task - contacting stakeholders and manufacturers in the industry. (Contract Period June 30, 2002 to May 30, 2003 it is extendable.

3. Determine the viability of pyrolysis-type conversion processes.

Staff is currently in the process of selecting a contractor to determine the viability of pyrolysis type conversion process by identifying technology changes and how this technology is affected by the current economic environment for tires. This will be an update to the report was done by Cal Recovery and was funded by the Board back in July 1995. The RFP for this contract should be released soon and the Board will make the award in April.

Currently there are no commercially operating pyrolysis systems in the United States. The proposed technology evaluation and economic analysis report will help to establish a baseline for evaluating future proposal received by staff.

4. Determine the viability of energy recovery from waste tires, and establish optimum operational parameters.

Over the past 12 years of the tire recycling program more than 90 million tires have been consumed as fuel in energy recovery applications. During this same period the Board has expended nearly \$1.2 million dollars for projects related to energy recovery and tire combustion. No other tire diversion process has approached this level of viability.

5. Determine the viability of devulcanization.

The Scope of Work will be presented to the Board In February 2003. Staff is proposing to use the Request Of Proposal (RFP) process.

6. Increase the number of grants and contracts awarded to promote civil engineering applications of waste tires.

During FY 2000/2001, awarded three contracts to promote civil engineering applications of waste tires. These contracts included engineering and environmental Services contract with Dana Humphrey, engineering and oversight contract with IT corporation, and an interagency agreement with the University of California at Davis.

Under the environmental services contract with Dana Humphrey Consulting Engineering, CIWMB continued to provide education on, and promoted the use of, tire shreds as an alternative to conventional lightweight fill materials in highway construction projects. This contract has allowed the Board to partner with CalTrans to construct a highway off-ramp at Dixon Landing using tire shreds and the Valley Transportation Authority to use tire shreds as a vibration dampening material in their light rail system in San Jose.

The contract with the IT corporation was to provide engineering and construction oversight of Board sponsored projects utilizing waste tires. IT assisted the Board in both the Dixon Landing project and the San Jose Project.

The contract with the University of California will investigate the seismic dampening properties of tire shreds in the design of bridge abutments. The application has the potential to use waste tires in the design of structures in seismically active areas of the state.

7. Investigate and evaluate potential methods that could increase the life span of tires within five years.

The Board awarded a contract to Symplectic Engineering Corporation to investigate methods for increasing tire longevity. The final report should be available early in the summer of 2003.

8. Investigate and identify potential methods to recycle and reuse byproducts created from the processing of crumb rubber.

Awarded \$99,567 to a contractor. CalRecovery is working on 2nd task - the survey to stakeholders. (Contract Period June 1, 2002 to June 30, 2003 it is extendable).

9. Increase the percentage of RAC used in highway projects in California over the next five years.

CalTrans annually reports to the Board on its usage of RAC. The Northern RACTC has entered into a contract with a private firm to develop a database of local government RAC projects, which will help to establish a baseline for RAC usage. Once the database is established (4-6 months) staff will have additional information (along with the CalTrans information) to draw upon in developing the future RAC efforts of the Board.

10. To the extent possible, establish a list of experts and assure that third-party peer review is done on all research activities.

Feasibility Study for Establishment of Cross-Disciplinary California Tire Research Center at California Academic Institution was awarded to OEHHA in the amount of \$30,000.

The purpose of this contract is for the Contractor to provide the California Integrated Waste Management Board (Board) with findings and recommendations regarding three or more approaches for the Board to obtain the expertise needed to assist in tire-related issues including the possible establishment of a California Tire Research Center within an institution. The Contractor will focus on gathering information on a variety of academic institutions including the University of California, the California State University and private institutions regarding their interest and capacity to provide the Board with technical guidance regarding a variety of tire issues.

Due to delays in the contract process a new schedule is being submitted by OEHHA.

**Market Development** - *The performance measures for market development directly relate to the objectives stated in this section under "The Plan." Baseline data will be collected during FY 01/02 for all quantitative measures using the annual waste tire survey, grant and contract results, and end-uses reported in the enhanced manifest system. The performance measures below are presented in order of IWMB's hierarchy of waste management (source reduction; recycling and reuse; environmentally safe transformation; and lastly, landfill disposal).*

1. Percent of increase in public awareness of proper care and purchase of tires use of products made from recycled waste tires or purchase of retreaded tires, and proper disposal of waste tires. These educational attributes will be measured by contracting with an organization to conduct a survey every two years of California residents and comparing the results with baseline data obtained from the survey conducted during FY 01/02.

Chico State Contract IWM-CO183 original date of contract: June 1, 2002. Contract was late, and put into place on August 28, 2002 (3 months late). Chico has completed the literature review and will send via e-mail to CIWMB by mid-January. Chico State and CIWMB is currently working on the final steps of the survey questions. Chico State will present the findings of the survey at the April Board meeting. Staff is currently working on the SOW for the PSA's for April 2003.

2. Percent of increase in the level of recycling as described in the "Objectives" section, as measured from the survey and data from the enhanced manifest system.

CIWMB staff estimates that, of the approximately 31.6 million reusable and waste tires generated in 2000, approximately 22.9 million or 72.5 percent of the tires were diverted for various alternatives, including reuse, re-treading, and combustion. CIWMB staff estimates that, of the approximately 33.3 million reusable and waste tires generated in 2001, approximately 24.9 million or 74.8 percent of the tires were diverted.

3. Percent of increase of grant funds appropriated that are used by the end of the grant term, obtained by conducting an analysis of the grant program after all grants are closed.

The current grants funded under SB 876 have not closed. The tables below indicated the funds allocated and awarded. Once the grants close, staff will analysis the data against the funds spent.

### Local Government Amnesty Day Grants

Fiscal Year	Total Funds Allocated	Total Funds Awarded	Total Funds Spent
FY 01/02	\$500,000	\$330,817.00	
FY 02/03	\$500,000	\$321,247.00	

### Playground Cover Grants

Fiscal Year	Total Funds Allocated	Total Funds Awarded	Total Funds Spent
FY 01/02	\$800,000	\$565,648.00	
FY 02/03	\$800,000	\$752,791.00	

### Track and Other Recreational Surfacing Grants

Fiscal Year	Total Funds Allocated	Total Funds Awarded	Total Funds Spent
FY 01/02	\$1,000,000	\$954,879.66	
FY 01/02	Reallocation Item	\$894,409.00	

### Product Commercialization Grants

Fiscal Year	Total Funds Allocated	Total Funds Awarded	Total Funds Spent
FY 01/02	\$2,000,0000	\$1,929,389.00	
FY 01/02	Reallocation Item	\$250,000.00	
FY 02/03	\$2,000,000	\$1,964,799.00	

4. Percent of increase in use of waste tire products by public agencies, including RAC, measured by analyzing annual reporting requirements and grant/contract final reports to IWMB.

Below are the data obtained for fiscal year 2001/02, however; these activities were funded prior to SB 876 legislation.



During fiscal year 2001/02 only two Waste Tire Grant Programs reported numbers from the recycled-content certification forms. Playground Cover and Track Surfacing grants (TR14), reported that 99.6% of the grant funds were used for purchasing of recycled-content products. The Local Government Amnesty Day grants (TR 13) reported that 3.6% of the grant funds were used for purchasing of recycled-content products.

The Waste Tire Program reported no data for their contracts during fiscal year 2001/02.

During fiscal year 2001/02 public agencies reported of the \$905,293.62 spent on tire-derived products, \$782,292.51 (86.42%) was spent on recycled-content products. And during the same period, public agencies reported of the \$5,718,151.59 spent on tires, \$772,995.86 (13.59%) was spent on re-treaded tires.

RAC- CalTrans reported 2,698,778 tires used in 2000 and 1,964,953 tires used in 2001.

5. Percent of reduction in the number of waste tires disposed in landfills annually, based on data collected for the annual report and from the enhanced manifest system.

In calendar year 2001, 8.4 million tires were disposed of in a landfill.

6. Level of satisfaction with grant/contract management based on staff surveys conducted when the grants/contracts close.

A customer service comment form will be developed to obtain feedback. Staff plans on sending the form out to all grantees as the grants close.

7. Improve grant administration by streamlining the grant administration process by identifying time-consuming and/or unnecessary steps.

During FY 2001/02 staff participated in the development and implementation of a new Grant Management System (GMS) that streamlines the administration of grant management. Also in 2002, the Office of Organizational Effectiveness conducted an investigation on the grant administration process. In addition, during fiscal year 2002/03 staff streamlined the application process for the local enforcement grants. Further, during fiscal year 2002/03 grant writing workshops were conducted. Survey results from number 6 above will be used to determine if further changes are needed.

**Hauler and Manifest System** - *To evaluate the program's success in achieving its objectives, the following measures are proposed (baseline data will be collected during FY 01/02):*

1. Percent of generators identified and contacted by program staff by March–June 2002.

As of the spring of 2002, Board staff has identified more than 12,000 waste tire generators, waste tire haulers, and waste tire end-use facilities. To date, Board staff has contacted 585 of these operators, approximately 4.8 %. In the spring of 2003, Board staff will mail out contact letters to all of these operators, informing them of the impending new manifest program and

issuing a unique Tire Program Identification Number (TPID) to each waste tire location. It is anticipated that as this program grows, more unknown generators will be added to this list.

2. Percent of identified and contacted generators trained on registration and manifest requirements by December 2003.

It is projected that the training portion of this new manifest system will commence in May-June 2003. Board staff feels that two, maybe three, training sessions will be held at each of the various statewide training locations during the 2003 calendar year in an effort to reach out to as many potential users of this manifest system as possible. This information will be reported in the 2004 report.

In addition, the Waste Tire Hauler Program is commencing (Jan 2003) with a quarterly newsletter to the waste tire haulers and an additional one is being considered for waste tire generators which allow added training and question & answer segments to cover any questions regarding the new manifest program or provide for comments or recommendations.

3. Percent of identified used and waste tires generated, using IWMB's historical data, that are reported under the paper manifest system in 2004.

This information will be tabulated when the waste tire manifest system is fully underway; however, there will be a ninety (90) day delay in the submission of the paper documentation, therefore the accuracy of this information in its entirety will not be known until April 2005.

4. Percent of identified used and waste tires generated, using IWMB's historical data, that are reported under the paper and electronic manifest systems in 2005.

This information will be tabulated when the Electronic Data Transmission (EDT) portion of the waste tire manifest system is fully underway; however, there will also be a ninety (90) day delay in the submission of this documentation as in the paper manifest system, therefore the accuracy of this information in its entirety will not be known until April 2006.